



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/717,584

11/21/2003

Satoshi Kaneko

03200

8552

23338 7590 05/22/2007
DENNISON, SCHULTZ & MACDONALD
1727 KING STREET
SUITE 105
ALEXANDRIA, VA 22314

EXAMINER

WONG, EDNA

ART UNIT

PAPER NUMBER

1753

MAIL DATE

DELIVERY MODE

05/22/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/717,584

Applicant(s)

KANEKO, SATOSHI

Examiner

Edna Wong

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) 3 and 4 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date See Continuation Sheet.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :December 5, 2003 and April 4, 2006.

Election/Restrictions

Applicant's election without traverse of Group I, claims **1 and 2**, in the reply filed on April 26, 2007 is acknowledged.

The requirement is still deemed proper and is therefore made FINAL.

Accordingly, claims **3 and 4** are withdrawn from consideration as being directed to a non-elected invention.

Specification

The disclosure is objected to because of the following informalities:

pages 2-3, [0009], the brief description of FIG. 7 is missing.

Appropriate correction is required.

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

Claim **1** is objected to because of the following informalities:

Claim 1

line 5, the word -- a -- should be inserted after the word "form".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

I. Claims 1 and 2 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for an electroplating apparatus, does not reasonably provide enablement for a plating apparatus. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

Claim 1

lines 4-5, recites "a plating apparatus". A plating apparatus reads on electrolytic and non-electrolytic plating apparatuses.

However, Applicant's specification discloses that a cathode member 9 is provided within the cell 8 and a copper plate 10 is connected to a power supply, is disposed on a side of the cell 8 (page 6, [0106] and Fig. 4). Thus, there is insufficient written description to inform a skilled artisan to use the invention with any other plating apparatus other than by an electroplating apparatus.

II. Claims 1 and 2 are rejected under 35 U.S.C. 112, first paragraph, because the

specification, while being enabling for electroplating, does not reasonably provide enablement for to form. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

Claim 1

line 5, recites "to form". To form reads on electroplating and non-electroplating methods.

Applicant's specification discloses that a cathode member **9** is provided within the cell **8** and a copper plate **10** is connected to a power supply, is disposed on a side of the cell **8** (page 6, [0106] and Fig. 4). Thus, there is insufficient written description to inform a skilled artisan to use the invention by any other plating method other than by an electroplating method.

II. Claim **2** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2

lines 2-3, "the upstream and downstream of said plating unit" lacks antecedent basis.

lines 2-3, "said plating unit" lacks antecedent basis.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipate by **Audelo** (US Patent No. 4,321,124).

Audelo teaches a plating method comprising:

putting an object product **28** (= a small electrical connector) [col. 2, lines 60-67] to be plated (= it is the end **30** that it is necessary to be plated with the entire surface of the electrical connector **28** not required to be plated) [col. 2, line 67 to col. 3, line 2] in each accommodating concave portion **86** (= a part locating hole) in a carrier tape **78** (= a continuous belt) having a number of spaced accommodating concave portions **86** (= the loose parts are assembled in a spaced-part manner through holes mounted within a continuous belt) [abstract; col. 4, lines 27-29; and Figs. 3 and 9] and passing the object product to be plated through a plating apparatus **110** (= a plating section) [col. 6, lines 62-65] by feeding the carrier tape so as to form metallic plating layer (= nickel and gold) [col. 6, lines 62-65] on the surface of the object product to be plated (= after the belt **78** moves exteriorly of the installing station **22**, the belt **78** begins to enter the plating station **24**) [col. 4, lines 60-66; and Fig. 1].

A washing unit is disposed in the upstream of said plating unit and said object

Art Unit: 1753

product to be plated is passed through said washing unit and washed (= the station 108 could be utilized in the form of an acid bath in order to wash the part to be plated to make the surface of the part more readily susceptible to adhere to the plating metal) [col. 6, lines 59-62].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Audelo** (US Patent No. 4,321,124) as applied to claim 1 above, and further in view of **Comp** (US Patent No. 4,904,363).

Audelo is as applied above and incorporated herein.

The method of Audelo differs from the instant invention because Audelo does not disclose wherein a washing unit is disposed in the downstream of said plating unit and said object product to be plated is passed through said washing unit and washed, as recited in claim 2.

Audelo teaches that the station 108 could be utilized in the form of an acid bath in order to wash the part to be plated to make the surface of the part more readily susceptible to adhere to the plating metal. The plating section 110, for example, could

include a nickel plating solution with the plating section **112** to include a gold plating solution. However, it is considered to be within the scope of this invention that any of the stations **108, 110 and 112** could be utilized to accommodate any particular desired solution (col. 6, lines 59-68).

Like Audelo, Comp teaches a selective plating method. Comp teaches that for instance, an electroplating line for gold will first comprise an alkaline cell **42** which contains a plurality of wiper/rinses and an alkali bath. One wiper/rinse is located before the bath and the other is after the bath (col. 3, line 20-37).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the method described by disposing a washing unit downstream of said plating unit and said object product to be plated is passed through the washing unit and washed because Audelo teaches that any of the stations **108, 110 and 112** could be utilized to accommodate any particular desired solution, and having one washing unit located before the bath and the other is after the bath is a standard and well known electroplating line as taught by Comp (col. 3, line 23-37).

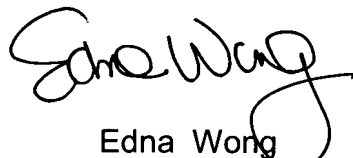
Furthermore, having one washing unit located after the bath would have removed residual plating solution from not only the plated object products, but also from the carrier tape.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edna Wong whose telephone number is (571) 272-

1349. The examiner can normally be reached on Mon-Fri 7:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Edna Wong
Primary Examiner
Art Unit 1753

EW
May 19, 2007